

Title (en)

Method and device for separating products, mounted on a common substrate, from each other, along (a) cutting line(s)

Title (de)

Methode zur Trennung von auf einem gemeinsamen Substrat montierten Produkten entlang einer Schneidelinie voneinander

Title (fr)

Méthode et dispositif de separation des produits l'un de l'autre, montés sur un supstrat commun selon des lignes prédéterminées

Publication

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Application

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Priority

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Abstract (en)

The invention relates to a method and a device for separating products mounted on a common substrate, from each other, along (a) cutting line(s). The products each comprise one or more chips present on said substrate and connecting means connected thereto, the connecting ends remote from the chip of which are provided with solder balls bonded thereto. The products are clamped down on a supporting element by using a sub-atmospheric pressure, and the supporting element and a rotary cutting blade are moved relative to each other along the intended cutting line so as to cut through the substrate. A liquid is supplied at the location of said cutting line on either side of the substrate.

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IPC 8 full level

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Citation (search report)

- [A] DE 3137301 A1 19830414 - PRESCO INC [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 095, no. 002 31 March 1995 (1995-03-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 464 (E - 1137) 25 November 1991 (1991-11-25)
- [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 170 (E - 035) 22 November 1980 (1980-11-22)

Cited by

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